October 3, 2003

To: Interested Parties

From: Steve Keller, Chief Assistant General Counsel

Al Mobley, MAI, CCIM, CAE, AAS, Revenue Program Administrator

Re: Fourth draft of the Florida Uniform Market Area Guidelines

Enclosed is the Department of Revenue's fourth draft of the *Florida Uniform Market Area Guidelines*, dated October 3, 2003. When adopted, this document will become part of the Department's Manual of Instructions for Property Appraisers and other officials connected with the administration of property taxes, developed pursuant to section 195.062, Florida Statutes. When completed by the adoption of the *Florida Uniform Market Area Guidelines*, the Manual of Instructions will contain:

- 1. Rules and regulations, including the Florida Uniform Market Area Guidelines;
- 2. The valuation guidelines (standard measures of value) developed pursuant to section 195.032, Florida Statutes. These guidelines consist of:
 - a) The Florida Real Property Appraisal Guidelines,
 - b) Classified use guidelines for agricultural property pursuant to section 193.461, Florida Statutes, and
 - c) Tangible personal property guidelines;
- 3. Forms and instructions relating to the use of the forms; and
- 4. Instructions relating to the use of maps.

Prior to the development of the initial draft of the *Florida Uniform Market Area Guidelines*, dated June 9, 2003, the Department held four public workshops in order to receive input from interested parties on the subject of market area codes on Florida assessment rolls. These workshops were held on the following dates and at the following locations: January 4, 2001 in Orlando; April 3, 2001 in Tallahassee; June 26, 2002 in Tallahassee; and July 9, 2002 in Orlando. The input received from these workshops and from a few written comments was considered in the development of the initial draft of these uniform guidelines.

The initial draft of the *Florida Uniform Market Area Guidelines*, dated June 9, 2003, was based on Florida law, manual of instructions, regulatory requirements, and consideration of other sources of information. Such other sources of information considered in the development of the initial draft include the following: 1) Florida Property Appraisers and their representatives; 2) Florida taxpayers and their representatives; 3) the Property Tax Administration Task Force (includes representatives of a wide variety of Florida stakeholders); and 4) professional references.

Interested Parties October 3, 2003 Page Two

Two public workshops were held for the purpose of receiving public comments on the initial draft. These workshops were held on June 24, 2003 in Tallahassee and on June 26, 2003 in Orlando. These workshops were held on different dates and at different locations in order to maximize the opportunity for input from interested parties. A few written comments on the initial draft also were received. The second draft of the *Florida Uniform Market Area Guidelines*, dated July 10, 2003, was based on consideration of the initial draft, its sources, and the comments received on the initial draft.

Two public workshops were held for the purpose of receiving public comments on the second draft. These workshops were held on July 22, 2003 in Tallahassee and on July 24, 2003 in Orlando. The third draft of the *Florida Uniform Market Area Guidelines*, dated August 14, 2003, was based on consideration of the second draft, its sources, and the comments received on the previous drafts.

A public workshop was held for the purpose of receiving public comments on the third draft of the *Florida Uniform Market Area Guidelines*, dated August 14, 2003. This workshop was held on August 22, 2003 in Orlando. The fourth draft of the *Florida Uniform Market Area Guidelines*, dated October 3, 2003, is based on consideration of the third draft, its sources, and the comments received on the previous drafts.

Copies of the fourth draft were mailed to all 67 Florida Property Appraisers and to all other persons on the Property Tax Administration's interested parties list. No workshops will be held on this fourth draft, but written comments are welcome at the address referenced below.

The fourth draft is being provided to interested parties for review and comment. Please keep in mind that the intended use of these guidelines is for Florida Property Appraisers to use them to establish market areas and market area codes on real property assessment rolls as required by section 193.114, Florida Statutes. The intended use of market areas is for both Property Appraisers and the Department of Revenue to use them as geographic units in the statistical and analytical review of real property assessment rolls as described in section 195.096(2)(c), Florida Statutes. There may be other applications of market areas in the real estate industry and in the appraisal profession that are not relevant to the development and use of market areas on real property assessment rolls under Florida law.

We appreciate your review and comments, and request that you respond by no later than October 20, 2003. Please direct your comments to the following address: Sharon Gallops, Tax Law Specialist, Department of Revenue, Property Tax Technical Unit, P.O. Box 7443, Tallahassee, Florida 32314-7443.

The fourth draft also will be posted to the Department's guidelines web page on the Internet at http://myflorida.com/dor/property/RP/pcomment.html. E-mail comments can be directed to the address given on that web page.

Enclosure

The Florida Uniform Market Area Guidelines

Draft Dated October 3, 2003

FLORIDA DEPARTMENT OF REVENUE PROPERTY TAX ADMINISTRATION PROGRAM

TABLE OF CONTENTS

1.0	INTRODUCTION
1.1	Overview and Legal Framework
1.2	Legislative Intent for Just Valuations and Uniform Assessments
1.3	Specific Authority for Uniform Market Area Guidelines
1.4	Legal Provisions and the Variation in Florida's Real Property Markets
1.5	Description of Geographic Stratification
1.6	Purposes of These Uniform Guidelines
1.7	Intended Users of These Uniform Guidelines
1.8	Intended Use of These Uniform Guidelines
1.9	Uses for Which These Uniform Guidelines Are Not Intended
1.10	Sources of Information for These Uniform Guidelines
2.0	IMPORTANT DEFINITIONS
2.1	Overview
2.2	Stratification
2.3	Geographic Stratification
2.4	Market Area
2.5	Market Area Codes
2.6	Neighborhood
2.7	Ratio Study
2.8	Qualified Sales
2.9	Population
2.10	Sample
2.11	Representative Sample
2.12	Representativeness
3.0	USES OF MARKET AREAS IN FLORIDA
3.1	Overview
3.2	Statutory Real Property Strata
3.3	Statutory Strata Subject to Review Using Market Areas
3.4	Intended Use of Market Areas by the Department of Revenue
3.5	Aid and Assistance to Property Appraisers
3.6	Use of Market Areas by Florida Property Appraisers
3.7	Desired Minimum Sample Size for Market Areas

TABLE OF CONTENTS (Continued)

4.0	PARAMETERS FOR MARKET AREAS IN FLORIDA
4.1	Overview
4.2	Sale Counts and Parcel Counts per Market Area
4.3	Parameters for Stratum 1 Market Areas
4.4	Results and Comparison of Stratum 1 Market Area Parameters
4.5	Parameters for Stratum 2 Market Areas
4.6	Parameters for Stratum 4 and 5 Market Areas
4.7	Parameters for Stratum 6 Market Areas
4.8	Additional Market Area Parameter
5.0	DELINEATION AND CODING OF MARKET AREAS
5.1	Overview
5.2	Legal, Physical, and Economic Characteristics
5.3	Market Area Boundaries
5.4	Consideration of Census Geographic Entities
5.5	Market Area Coding Systems
5.6	Initial Period for Market Area Delineation and Coding
5.7	Maintenance of Market Areas and Market Area Codes
5.8	Framework for Resolution of Issues
	ADDENDUM

ADDENDUM

1.0 INTRODUCTION

1.1 Overview and Legal Framework. Section 4, Article VII, of the Florida Constitution, requires a just valuation of all real property for ad valorem taxation, with certain exceptions. Section 1(d), Article VIII, of the Florida Constitution, provides for the voters of each county to elect a Property Appraiser every four years. As one of their tasks, Florida Property Appraisers have the statutory responsibility to list and appraise all real property in each county each year for purposes of ad valorem taxation. The Florida Department of Revenue is a state administrative agency with the statutory responsibility of general supervision of the assessment and valuation of real property for purposes of ad valorem taxation. The functions of Property Appraisers and the Department of Revenue are distinct and separate, as described below.

Section 193.085(1), Florida Statutes, states the following: "The property appraiser shall ensure that all real property within his or her county is listed and valued on the real property assessment roll..."

Section 195.002(1), Florida Statutes, states the following: "The Department of Revenue shall have general supervision of the assessment and valuation of property so that all property will be placed on the tax rolls and shall be valued according to its just valuation, as required by the constitution. It shall also have supervision over tax collection and all other aspects of the administration of such taxes. The supervision of the department shall consist primarily of aiding and assisting county officers in the assessing and collection functions, with particular emphasis on the more technical aspects. In this regard, the department shall conduct schools to upgrade assessment skills of both state and local assessment personnel."

1.2 Legislative Intent for Just Valuations and Uniform Assessments. The short title of Chapter 195, Florida Statutes, is "Property Assessment Administration and Finance Law." The legislative intent for Chapter 195 is described in Section 195.0012, Florida Statutes, as follows.

"It is declared to be the legislative purpose and intent in this entire chapter to recognize and fulfill the state's responsibility to secure a just valuation for ad valorem tax purposes of all property and to provide for a uniform assessment as between property within each county and property in every other county or taxing district."

1.3 Specific Authority for Uniform Market Area Guidelines. Section 195.027(1), Florida Statutes, generally requires the Department of Revenue to prescribe rules and regulations for certain public officials, including Florida Property Appraisers, who must follow these rules and regulations. Section 195.062(1), Florida Statutes, specifically requires the Department of Revenue to prepare and maintain a current manual of instructions for Property Appraisers that includes rules and regulations. Sections 193.114(2) and (2)(a), Florida Statutes, specifically require the Department of Revenue to promulgate rules and guidelines for the establishment of market area codes (see section 1.4). Together, these statutes describe the specific authority and legislative intent for the promulgation and use of the Florida Uniform Market Area Guidelines.

Section 195.027(1), Florida Statutes, states the following: "The Department of Revenue shall prescribe reasonable rules and regulations for the assessing and collection of taxes, and such rules and regulations shall be followed by the property appraisers, tax collectors, clerks of the circuit court, and value adjustment boards. It is hereby declared to be the legislative intent that the department shall formulate such rules and regulations that property will be assessed, taxes will be collected, and the administration will be uniform, just, and otherwise in compliance with the requirements of the general law and the constitution."

Section 195.062(1), Florida Statutes, states the following: "The department shall prepare and maintain a current manual of instructions for property appraisers and other officials connected with the administration of property taxes. This manual shall contain all:

- (a) Rules and regulations.
- (b) Standard measures of value.
- (c) Forms and instructions relating to the use of forms and maps."

Based on the information in section 1.4 below, the Florida Uniform Market Area Guidelines are part of the rules and regulations portion of the manual of instructions as described above. Unlike the Florida Real Property Appraisal Guidelines, which are described in Section 195.062(1), Florida Statutes, as being part of the standard measures of value portion of the manual of instructions and, therefore, not having the force or effect of administrative rules, these Florida Uniform Market Area Guidelines are requirements and must be followed.

- **1.4 Legal Provisions and the Variation in Florida's Real Property Markets.** Sections 193.114(2) and (2)(a), Florida Statutes, state the following:
- "(2) The department shall promulgate regulations and forms for the preparation of the real property assessment roll to reflect:
- (a) A brief description of the property for purposes of location and, effective January 1, 1996, a market area code established according to department guidelines..."

These provisions specifically require the Department of Revenue to promulgate regulations, commonly referred to as rules, for the preparation of real property assessment rolls to include market area codes. These rules must be followed. The statute also provides for market area guidelines, which may be more flexible in their development and application, but which are requirements that also must be followed in order to meet the provisions of law. This application of guidelines allows for appropriate, but not unlimited, consideration of the variation in the legal, physical, and economic characteristics of the real property markets in Florida's 67 counties, while still complying with the requirements of Florida law including the legislative intent for uniformity in the just valuation of real property as described in sections 1.2 and 1.3. The appropriate, but not unlimited, application of the flexibility within this document must not

impede the uniform delineation, coding, and reporting of market areas in accordance with Florida law, rules, uniform guidelines, and regulatory requirements.

- 1.5 Description of Geographic Stratification. The delineation and use of market areas under Florida law is an application of geographic stratification. For purposes of the Florida Uniform Market Area Guidelines, geographic stratification means to divide, or stratify, the real property parcels within a county into geographic groups, known as market areas, for purposes of statistical and analytical review of real property assessment rolls by both Florida Property Appraisers and the Department of Revenue. Any other applications of geographic stratification are not required and are at the discretion of Florida Property Appraisers. The discussion of geographic stratification in the Florida Uniform Market Area Guidelines may be different from the discussions of the subject found in the single-property appraisal literature and also different from the discussions of the subject for producing real property valuations using mass appraisal.
- **1.6 Purposes of These Uniform Guidelines.** The purposes of the Florida Uniform Market Area Guidelines are as follows: 1) to provide direction and aid and assistance to Florida Property Appraisers for the delineation and coding of market areas for use in the statistical and analytical review of real property assessment rolls; 2) to promote and help facilitate the accuracy and uniformity of just valuations of real property for ad valorem tax purposes, both within and between counties; and 3) to meet the Florida Department of Revenue's statutory obligation to promulgate rules and guidelines for the establishment of market areas and market area codes.
- **1.7 Intended Users of These Uniform Guidelines.** Based on the statutory provisions referenced in sections 1.1, 1.2, 1.3, and 1.4 above, the primary intended users of the Florida Uniform Market Area Guidelines are Florida Property Appraisers and the Department of Revenue. Secondary users of these uniform guidelines may include taxpayers, other government agencies, and other interested parties. See sections 1.8 and 1.9 below.
- **1.8 Intended Use of These Uniform Guidelines.** The primary intended use of the Florida Uniform Market Area Guidelines is for Florida Property Appraisers and their staff to use them as direction and as aid and assistance in the establishment of market areas and market area codes, as required by Florida law. Subject to the provisions and limitations specified in section 1.9, the secondary intended use is for both primary and secondary users to consider these uniform guidelines as a source of basic knowledge of the delineation and intended use of market areas under Florida law.
- 1.9 Uses For Which These Uniform Guidelines Are Not Intended. The Florida Uniform Market Area Guidelines are not intended to be used as the complete reference source on any of the following or similar subjects: valuation theory, approaches, methods, or procedures; geographic stratification; or applicable provisions of Florida law, manual of instructions, or regulatory requirements. This document should be used in conjunction with other applicable sources of professional knowledge.
- **1.10 Sources of Information for These Uniform Guidelines.** The Florida Uniform Market Area Guidelines are based on Florida law, manual of instructions, regulatory

requirements, and consideration of additional sources of information. The reference to information from a particular additional source does not necessarily imply that such information is directly applicable to these guidelines or that all information from such additional sources is applicable to the delineation and use of market areas under Florida law. Additional sources of information considered in the development of these uniform guidelines include the following: 1) Florida Property Appraisers and their representatives; 2) Florida taxpayers and their representatives; 3) the Property Tax Administration Task Force (included representatives of a wide variety of Florida stakeholders); and 4) professional references.

2.0 IMPORTANT DEFINITIONS

- **2.1 Overview.** This section is not intended to represent a complete glossary of related terms, but rather is intended to include those most applicable. Listed below are certain definitions applicable to the Florida Uniform Market Area Guidelines. In the event of any conflict between these definitions and related definitions from other sources, the definitions below shall apply. These definitions are based on the following: 1) Florida law, manual of instructions, and regulatory requirements; 2) the intended uses of market areas as described herein; and 3) certain definitions from external sources.
- **2.2 Stratification.** Stratification is the division of real property populations or samples into two or more groups based on some defined criteria, resulting in property groups with one or more shared characteristics. These groups, or strata, are useful for the statistical and analytical review of real property assessment rolls. The appropriate level of stratification may range from general, with only one criterion, to detailed, with several criteria. The term "stratum" means one group, and the term "strata" means more than one group. For statistical and analytical review by the Department of Revenue, Section 195.096(3)(a), Florida Statutes, specifies seven real property classes, or strata (see section 3.2).
- **2.3 Geographic Stratification.** For purposes of the Florida Uniform Market Area Guidelines, geographic stratification means to divide, or stratify, the real property parcels within a county into geographic groups, known as market areas, for purposes of statistical and analytical review of real property assessment rolls by both Florida Property Appraisers and the Department of Revenue.
- **2.4 Market Area.** The definition of a market area is dependent upon its intended use. A market area is a geographic real property group required by law to be identified by a code on all real property parcels on Florida assessment rolls. Market areas have legal, physical, and economic characteristics, and are based on the statutory real property strata. Market areas are geographic divisions within Florida counties that, for purposes of these uniform guidelines, must not cross county lines. The delineation of market areas must not be based on any non-geographic stratification of real property. A market area is not synonymous with a comparable search area for a particular property or group of real property; a market area may be smaller than or larger than an appropriate comparable search area.

- **2.5 Market Area Codes.** A market area code is a two-digit code as described in Rule 12D-8.013(6)(a), Florida Administrative Code. The purpose of market area codes is to identify the real property groups that have been geographically stratified into market areas based on the statutory strata described in section 3.2. See section 5.5.
- **2.6 Neighborhood.** A neighborhood is a geographic real property group. Neighborhoods and neighborhood codes are different from market areas and market area codes. Market areas are larger geographic areas than neighborhoods. Neighborhoods and neighborhood codes are not required and are developed and used only at the discretion of Florida Property Appraisers.
- **2.7 Ratio Study.** Ratio study is defined in one ratio study reference as: "A study of the relationship between appraised or assessed values and market values. Indicators of market values may be either sales (sales ratio study) or independent 'expert' appraisals (appraisal ratio study). Of common interest in ratio studies are the level and uniformity of the appraisals or assessments." ¹
- **2.8 Qualified Sales.** In the context of the Florida Uniform Market Area Guidelines, qualified sales are defined as those real property sales reported as arm's length transactions to the Department and then filtered by the Department's analysis programs to enhance the accuracy and representativeness of the sale data. Such qualified sales are referred to in these uniform guidelines as sales or sale counts.
- **2.9 Population.** In the context of ratio studies, a population is defined as all real property parcels within a specified real property group. Depending on the situation, such a real property group may be composed of all real property within a county, all real property within a statutory stratum within a county, all real property within a market area, or all real property within some other specified group.
- **2.10 Sample.** In the context of ratio studies, a sample is defined as the qualified sales that may occur within a population of real property within a specified time frame, or the real property parcels that may be randomly selected from a population for appraisal ratio studies.
- **2.11 Representative Sample.** Representative sample is defined in one mass appraisal reference as: "A sample of observations from a larger population of observations that is similar in relevant features to the population; thus statistics calculated from the sample can be expected to be representative of the population being studied." ²
- **2.12 Representativeness.** Representativeness is a condition where the characteristics or statistics of a sample may be considered typical of the characteristics

² Robert J. Gloudemans, *Mass Appraisal of Real Property*, (Chicago: International Association of Assessing Officers, 1999), page 395.

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¹ International Association of Assessing Officers, *Standard on Ratio Studies* (Chicago: International Association of Assessing Officers, 1999), page 40.

or parameters of the population from which the sample is drawn. See definition of representative sample above.

3.0 USES OF MARKET AREAS IN FLORIDA

- **3.1 Overview.** A clear understanding of the appropriate uses of market areas as defined herein is required in order to develop uniform market area guidelines and to delineate and code market areas in accordance with these uniform guidelines. Florida Property Appraisers are required by law to delineate, code, and report market areas, and the Florida Department of Revenue is statutorily authorized to use market areas in the real property assessment roll review process. The results of the Department's review using market areas may be provided to Property Appraisers as aid and assistance. In order to proactively evaluate regulatory compliance, Property Appraisers should use market area stratification in their own ratio studies.
- **3.2 Statutory Real Property Strata.** Section 195.096(3)(a), Florida Statutes, requires the Department of Revenue to compute statistical and analytical measures on the following seven real property classes, or strata, when the classes constituted 5 percent or more of the total assessed value of real property in a county on the previous assessment roll.
- 1. Residential property that consists of one primary living unit, including, but not limited to, single-family residences, condominiums, cooperatives, and mobile homes.
- 2. Residential property that consists of two or more primary living units.
- 3. Agricultural, high-water recharge, historic property used for commercial or certain non-profit purposes, and other use-valued property.
- 4. Vacant lots.
- 5. Nonagricultural acreage and other undeveloped parcels.
- 6. Improved commercial and industrial property.
- 7. Taxable institutional or governmental, utility, locally assessed railroad, oil, gas, and mineral land, subsurface rights, and other real property.

In order to proactively evaluate regulatory compliance, Florida Property Appraisers also should perform statistical and analytical analyses on these statutory real property strata.

3.3 Statutory Strata Subject to Review Using Market Areas. Statutory strata 3 and 7 are not subject to statistical and analytical review by the Department of Revenue using market areas. The other five statutory real property strata are subject to statistical and analytical review by the Department using market areas.

3.4 Intended Use of Market Areas by the Department of Revenue. Section 195.096(2)(c), Florida Statutes, describes the intended use of market areas by the Department of Revenue during the review of assessment rolls, as follows.

"In conducting assessment ratio studies, the department must use a representative or statistically reliable sample of properties in tests of each classification, stratum, or roll made the subject of a ratio study published by it. The department shall document and retain records of the measures of representativeness of the properties studied in compliance with this section. Such documentation must include a record of the findings used as the basis for the approval or disapproval of the tax roll in each county pursuant to s. 193.1142. In addition, to the greatest extent practicable, the department shall study assessment roll strata by value groups or market areas for each classification, subclassification, or stratum to be studied, to assure the representativeness of ratio study samples. For purposes of this section, the department shall rely primarily on an assessment-to-sales-ratio study in conducting assessment ratio studies in those classifications of property specified in subsection (3) for which there are adequate market sales. The department shall compute the median and the value-weighted mean for each classification or subclassification studied or for the roll as a whole."

Geographic stratification using market areas is part of enhancing representativeness and evaluating appraisal uniformity in ratio studies. This is consistent with the information from a professional source presented in the following paragraph. The preceding paragraph also addresses minimum sample size requirements by the reference to "adequate market sales." Therefore, the development and application of the Florida Uniform Market Area Guidelines must address the competing considerations of stratifying to enhance representativeness and evaluate uniformity with providing for sample sizes sufficient for statistical and analytical review as described in section 3.7.

The following excerpts from a professional source describe the appropriateness of stratifying real property by type, geographic area, and value range for ratio studies.

"As with any ratio study, a major issue is stratification." 3

"Property class, geographic area, and value range are good candidates for stratification." 4

The information from these excerpts is consistent with the provisions for ratio studies found in Section 195.096(2)(c), Florida Statutes, and presented above.

Where appropriate, the Department may provide to Property Appraisers, as aid and assistance, the results of its statistical and analytical review using market areas.

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³ Robert J. Gloudemans, *Mass Appraisal of Real Property*, (Chicago: International Association of Assessing Officers, 1999), page 322.

⁴ Ibid, page 322.

- **3.5** Aid and Assistance to Property Appraisers. In any cases where systemic opportunities for improvement appear to exist, the results of the Department's statistical and analytical review using market areas may be provided to Property Appraisers as aid and assistance. In any such cases, Property Appraisers then may use this information to take advantage of the opportunities for improvement.
- 3.6 Use of Market Areas by Florida Property Appraisers. In order to proactively evaluate regulatory compliance, Property Appraisers should use market area stratification in their own ratio studies. The use of market areas in the value production process, which involves the application of a particular valuation methodology, is not required to achieve successful mass appraisal results. Consistent with Florida law, the Florida Uniform Market Area Guidelines do not suggest or advocate the application of particular valuation methodologies. The use of particular valuation methodologies and the use of market areas in the value production process are decisions of administrative discretion on the part of Florida Property Appraisers. See section 11.2 of the Florida Real Property Appraisal Guidelines, adopted November 26, 2002. At their discretion, Property Appraisers are authorized to develop and use, in the value production process, geographic units and related coding systems other than those described in these uniform guidelines, including other market areas and related coding systems.
- Desired Minimum Sample Size for Market Areas. As described in sections 3.4 3.7 and 3.5 above, the intended use of market areas is to apply them as geographic strata for the statistical and analytical review of real property assessment rolls. Where appropriate, the results of this review may be provided to Property Appraisers as aid and assistance. As addressed in section 3.4, adequate sample size (number of qualified sale transactions) generally is a primary consideration in the delineation and use of market areas for the statistical and analytical review of real property assessment rolls. In most cases, it is desirable to have market areas with at least 30 or more qualified sales within a calendar year. It is appropriate to provide a buffer between this desired sale count minimum and the annual variation in sale counts within market areas. Therefore, in most cases, the market areas reported on Florida assessment rolls should be delineated and coded to achieve, to the greatest extent possible, a minimum sample size within each market area of 40 qualified sale transactions within a calendar The attainment of this minimum sample size within market areas is not a requirement in all cases. For example, in the cases of counties with lower parcel counts or real property strata with limited sale counts, it may be preferable to focus more on the benefits of stratification than on achieving a desired minimum sample size, especially where there are systemic opportunities for aid and assistance.

4.0 PARAMETERS FOR MARKET AREAS IN FLORIDA

4.1 Overview. This section contains information and analysis for the Department of Revenue's development of market area parameters for Florida counties. As described in section 3.3, statutory strata 1, 2, 4, 5, and 6 are subject to statistical and analytical review by the Department of Revenue using market areas. The parameters described in this section pertain to these five statutory strata.

- **4.2 Sale Counts and Parcel Counts per Market Area.** The intended use of market areas, as described in section 3.4, requires appropriately balancing the need for stratification with the need for sufficient sale counts. For the intended use of market areas, the primary unit of interest is sale counts per market area. However, this unit may be subject to significant annual variation. Generally, parcel counts per market area are subject to less variation than sale counts per market area and are easier to determine and maintain. Therefore, the development and maintenance of market areas under these uniform guidelines should be based on consideration of both parcel counts and sale counts.
- 4.3 Parameters for Stratum 1 Market Areas. As described in section 3.2, statutory stratum 1 comprises residential property consisting of one primary living unit. Generally, statutory stratum 1 comprises a higher percentage of the total real property assessed value on assessment rolls than any of the other statutory strata. Most of the real property sales occur in stratum 1 as well. The distribution of stratum 1 parcel counts per market area is contained in Table 1 in the Addendum. Each row of data in Table 1 applies to a single county. These data are arrayed in ascending order by parcel counts that can be used to identify a particular county. The columns of data in Table 1 are described below, in the order of development.
- (1) The first column, titled "Stratum 1 Parcel Counts," contains parcel counts for stratum 1 property in each county, taken from the 2002 final assessment rolls.
- (2) The third column, titled "Mid-Range Average Parcels per MA," contains the variable on which these parameters are based. These numbers represent mean parcel counts per market area. This variable begins with 800 parcels and was developed through consideration of the relationship between parcel counts and the three-year average sale counts within counties, with a view toward balancing the need for stratification with the desirability of having adequate sales within market areas. The sale counts used were taken from the sale data reported by the counties for the calendar years 2000, 2001, and 2002, and then filtered as described in section 2.8. Moving down the table, the mid-range average parcels per market area variable is increased at a constant percent change intended to create a reasonable and uniform array consistent with the better applications of market area counts that currently exist on several Florida assessment rolls.
- (3) The second column, titled "Minimum Average Parcels per MA," contains the minimum mean parcel counts per market area for stratum 1 property in each county; these numbers are subject to limited exceptions. These numbers were calculated by multiplying the mid-range average parcels per market area variable (third column) by 90 percent (.90). Within a county, the actual mean parcel count per market area may be less than the minimum indicated in this column, provided that useful sale counts exist within each market area on a consistent annual basis.
- (4) The fourth column, titled "Maximum Average Parcels per MA," contains the maximum mean parcel counts per market area for stratum 1 property in each

- county. These numbers were calculated by multiplying the mid-range average parcels per market area variable (third column) by 110 percent (1.10).
- (5) The fifth column, titled "Minimum Parcels for Any Single MA," contains the minimum parcel count for any individual market area within a county. In limited cases, the parcel count within an individual market area may be less than that indicated in this column, provided that the Department specifically approves a county's written request. Such request must describe an unusual situation and include sufficient justification.
- (6) The sixth column, titled "Maximum Parcels for Any Single MA," contains the maximum parcel count for any individual market area within a county.

For counties with lower total parcel counts and where stratum 1 sale counts are limited, there likely will be sale counts less than the desired minimum within market areas resulting from a county's diligent attempts to comply with these uniform guidelines, and the Department recognizes these situations. In such cases, it is appropriate to focus more on the benefits of geographic stratification than on attaining the desired sale count minimum. In these situations where a county has made diligent attempts to appropriately balance the need for stratification with the need for sufficient sale counts within market areas, that county will not be held responsible should the sale counts within market areas fall below the desired minimum described in section 3.7.

- Results and Comparison of Stratum 1 Market Area Parameters. Table 2 in the Addendum contains the results of the Stratum 1 market area parameters described in section 4.3, along with a comparison with other geographic units including existing market area counts. The second, third, and fourth columns contain the following, respectively: the number of census tracts for each county; the number of census places for each county; and the number of existing stratum 1 market areas reported by each county on the 2002 final assessment rolls. See section 5.4 for a discussion on consideration of census geographic entities. The number of existing market areas reveals the lack of uniformity statewide and the need to have uniform guidelines. The next three columns contain the lower, mid-range, and upper number of market areas indicated by the uniform guidelines; in most cases, Property Appraisers may delineate and report more market areas than those reflected in the expected range. Comparison of this expected range of market areas with the column of existing market areas reveals that the existing number of market areas in several Florida counties lies within or exceeds the range of market areas indicated by the Florida Uniform Market Area Guidelines. [Note: The information in this paragraph and Table 2 is included in the fourth draft for illustrative purposes only and will be excluded from a future draft.]
- **4.5 Parameters for Stratum 2 Market Areas.** As described in section 3.2, statutory stratum 2 comprises residential property consisting of two or more primary living units. The parcel counts and sale counts within stratum 2 are much less than those within stratum 1. As discussed below, some Florida counties may not have stratum 2 sale counts sufficient to meet the desired sample size described in section 3.7. The parameters for stratum 2 market areas are described below. All references to parcel counts are based on the 2002 final assessment rolls.

- (1) At their discretion, counties with fewer than 2,300 stratum 2 parcels may delineate, code, and report up to four stratum 2 market areas. The Department recognizes that in many cases for these counties, sale counts per market area may be less than the desired minimum. In such cases, it is appropriate to focus more on the benefits of geographic stratification than on attaining the desired sale count minimum. In these situations where a county has made diligent attempts to appropriately balance the need for stratification with the need for sufficient sale counts within market areas, that county will not be held responsible should sale counts fall below the desired minimum described in section 3.7.
- (2) Generally, counties with more than 2,300 stratum 2 parcels have sufficient sale counts, with possible exceptions, for the use of more than one market area in statistical and analytical review. All counties with more than 2,300 stratum 2 parcels should delineate, code, and report two or more market areas as described below, even if a county has insufficient sale counts at the time of implementation. In the case where a county with more than 2,300 parcels has made diligent attempts to appropriately balance the need for stratification with the need for sufficient sale counts within market areas, that county will not be held responsible should sale counts fall below the desired minimum described in section 3.7.
- (3) Counties with between 2,300 and 9,000 stratum 2 parcels, inclusive, should delineate, code, and report from two to six stratum 2 market areas, depending upon parcel counts and sale counts. Within this total parcel count range, counties with more parcels and more sales are expected to have more market areas. The range for average parcel counts per market area is 800 to 2,500 parcels, and the range for parcel counts for any individual market area is 800 to 3,000 parcels. Each market area should be developed to contain, to the greatest extent possible, the desired minimum sale counts described in section 3.7.
- (4) Counties with between 9,001 and 15,000 stratum 2 parcels should delineate, code, and report seven to fifteen market areas, depending upon parcel counts and sale counts. Within this total parcel count range, counties with more parcels and more sales are expected to have more market areas. The range for average parcel counts per market area is 800 to 2,000 parcels, and the range for parcel counts for any individual market area is 800 to 2,500 parcels. Each market area should be developed to contain, to the greatest extent possible, the desired minimum sale counts described in section 3.7.
- (5) Counties with more than 15,000 stratum 2 parcels should delineate, code, and report eighteen to twenty-five market areas, depending upon parcel counts and sale counts. Within this total parcel count range, counties with more parcels and more sales are expected to have more market areas. The range for average parcel counts per market area is 800 to 2,000 parcels, and the range for parcel counts for any individual market area is 800 to 2,500 parcels. Each market area should be developed to contain, to the greatest extent possible, the desired minimum sale counts described in section 3.7.

- 4.6 Parameters for Stratum 4 and 5 Market Areas. Statutory stratum 4 generally comprises vacant subdivided lots and statutory stratum 5 generally comprises undeveloped parcels. These two strata are subject to significant annual variation in sale counts, parcel counts, and parcel locations due to the ongoing creation and development of vacant parcels. In order to optimize the efficiency of the uniform market area delineation and maintenance processes, and at the discretion of Property Appraisers, the market area boundaries delineated for stratum 1 property also may be used for stratum 4 property and the market area boundaries for stratum 6 property also may be used for stratum 5 property. See section 5.5. Alternatively, and at the discretion of Property Appraisers, separate market area systems for strata 4 and 5 may be delineated, coded, and reported. In such systems, each market area should be delineated with diligent attempts to appropriately balance the need for geographic stratification with the need to achieve within market areas the desired minimum sale counts described in section 3.7.
- 4.7 Parameters for Stratum 6 Market Areas. As described in section 3.2, statutory stratum 6 comprises improved commercial and industrial property. The parcel counts and sale counts within stratum 6 are much less than those within stratum 1. As discussed below, some Florida counties do not have stratum 6 sale counts sufficient to meet the desired sample size described in section 3.7. The parameters for stratum 6 market areas are described below. All references to parcel counts are based on the 2002 final assessment rolls.
- (1) At their discretion, counties with 5,000 or fewer stratum 6 parcels may delineate, code, and report up to four stratum 6 market areas. The Department recognizes that in many cases for these counties, sale counts per market area will be less than the desired minimum. In such cases, it is appropriate to focus more on the benefits of geographic stratification than on attaining the desired sale count minimum. In these situations where a county has made diligent attempts to appropriately balance the need for stratification with the need for sufficient sale counts within market areas, that county will not be held responsible should sale counts fall below the desired minimum described in section 3.7.
- (2) Generally, counties with more than 5,000 stratum 6 parcels have sufficient sale counts for the use of more than one market area in statistical and analytical review. All counties with more than 5,000 stratum 6 parcels should delineate, code, and report two or more market areas as described below, even if a particular county has insufficient sale counts at the time of implementation. In any case of marginal sale counts where a county with more than 5,000 parcels has made diligent attempts to appropriately balance the need for stratification with the need for sufficient sale counts within market areas, that county will not be held responsible should sale counts fall below the desired minimum described in section 3.7.
- (3) Counties with between 5,000 and 11,000 stratum 6 parcels, inclusive, should delineate, code, and report two or three stratum 6 market areas, depending upon parcel counts and sale counts. Within this total parcel count range, counties with more parcels and more sales are expected to have more market areas. The range for average parcel counts per market area is 1,500 to 4,500 parcels, and the range

- for parcel counts for any individual market area is 1,500 to 5,000 parcels. Each market area should be developed to contain, to the greatest extent possible, the desired minimum sale counts described in section 3.7.
- (4) Counties with between 11,000 and 17,200 stratum 6 parcels should delineate, code, and report three to six market areas, depending upon parcel counts and sale counts. Within this total parcel count range, counties with more parcels and more sales are expected to have more market areas. The range for average parcel counts per market area is 1,500 to 4,500 parcels, and the range for parcel counts for any individual market area is 1,500 to 5,000 parcels. Each market area should be developed to contain, to the greatest extent possible, the desired minimum sale counts described in section 3.7.
- (5) Counties with more than 17,200 stratum 6 parcels should delineate, code, and report seven to ten market areas, depending upon parcel counts and sale counts. Within this total parcel count range, counties with more parcels and more sales are expected to have more market areas. The range for average parcel counts per market area is 1,500 to 4,000 parcels, and the range for parcel counts for any individual market area is 1,500 to 4,500 parcels. Each market area should be developed to contain, to the greatest extent possible, the desired minimum sale counts described in section 3.7.
- **4.8 Additional Market Area Parameter.** During the initial delineation of market areas, counties should utilize, to the greatest extent possible, parcel counts per market area significantly below the maximums in order to minimize subsequent maintenance of market areas when parcel counts per market area approach the maximums due to market growth. This consideration would be less important for areas that are built-out and have limited potential for growth. See section 5.7.

5.0 DELINEATION AND CODING OF MARKET AREAS

- **5.1 Overview.** Market areas must be delineated, coded, maintained, and reported on each real property parcel on assessment rolls in accordance with applicable Florida law, rules, uniform guidelines, and regulatory requirements. This approach will substantially enhance the Department of Revenue's primary reliance on sale ratio studies using available sale data as described in Section 195.096(2)(c), Florida Statutes.
- **5.2 Legal, Physical, and Economic Characteristics.** The legal, physical, and economic characteristics of real property groups represent useful considerations for identifying reasonable market area boundaries in accordance with the sample size considerations described in section 3.7, the market area parameters described in sections 4.3 through 4.8, and the items listed in section 5.1. Practical examples of such considerations include the following:
 - (1) Future land use classification boundaries;
 - (2) Municipal limits;

- (3) County lines;
- (4) Section lines;
- (5) Boundaries of census tracts and other census geographic entities;
- (6) Subdivision boundaries;
- (7) Rivers, oceans, bays, etc.;
- (8) Major streets, expressways, railroads, canals, etc.;
- (9) Significant changes in real property type;
- (10) Significant changes in real property size;
- (11) Significant changes in real property construction quality and features; and
- (12) Significant changes in real property effective age.

The appropriate amount of weight to place on such individual considerations will vary based on the statutory stratum involved. For example, a major street may be a good boundary for a stratum 1 market area, but may be inappropriate for a stratum 6 market area if commercial properties line both sides of the street. A better boundary for a stratum 6 market area may be a future land use classification boundary. Depending on the circumstances and at the discretion of Property Appraisers, all or part of the boundaries of a census tract or a group of census tracts may be useful boundaries for a market area. See section 5.4.

- **5.3 Market Area Boundaries.** Market area boundaries must be delineated, coded, and reported in accordance with the following:
- (1) applicable Florida law, rules, uniform guidelines, and regulatory requirements;
- (2) the sample size considerations described in section 3.7;
- (3) the market area parameters described in sections 4.3 through 4.8; and
- (4) the relevant legal, physical, and economic factors referenced in section 5.2.

However, excessive reliance on legal, physical, and economic factors must not impede compliance with the first three provisions listed above in this section. Provided that all parameters and requirements of these uniform guidelines are met, the location, size, and shape of market area boundaries are at the discretion of Property Appraisers. A market area boundary must not extend beyond a county line. Market area boundaries for different statutory strata can overlap. In almost all cases, the boundaries of a particular market area will form a single geographic unit, but there may be limited exceptions such as the case of islands or other unique situations where a market area could be composed of two or more non-contiguous geographic areas. The Department may require appropriate, documented justification for such unique situations.

5.4 Consideration of Census Geographic Entities. There are a few census geographic entities that should be considered in the delineation of market areas. Census tracts are geographic entities required by the U.S. government and that cover the entire United States. Like those within market areas, the geographic real property groups within census tracts have legal, physical, and economic characteristics. The Uniform Residential Appraisal Report, required by numerous finance agencies of the

U.S. government, specifically provides for the reporting of census tracts. This indicates the importance of census tracts to users of these uniform reports. Additionally, the following excerpt is included to illustrate the relevance of census tracts to real property market analysis.

"If the subject property is a subdivision or an apartment complex, the census tracts represent the area from which the subdivision or complex will draw prospective home buyers or renters, who are part of the population of the census tracts. If the subject is a neighborhood shopping center, the census tracts represent the area from which its retail customers will be drawn. Population and employment projections for census tracts that delineate the market area will constitute the population and employment base for that market area." ⁵

The excerpt above is very useful for understanding the relationship between census tracts and the legal, physical, and economic characteristics of real property groups. Users of these uniform guidelines are cautioned that the delineation of market areas for individual properties does not apply to the development and application of these guidelines. Based on their intended use, the Florida Uniform Market Area Guidelines are focused on the delineation of market areas for groups of real property, not individual properties. Since census tracts divide all of the real property parcels within Florida counties into widely accepted geographic units that are widely used for real property market analysis, census tracts should be considered in the delineation of market areas under these uniform guidelines. Other census geographic entities that should be considered include census block groups, census places, and traffic analysis zones. In the delineation of market areas, the degree of consideration placed upon the type, size, shape, and location of census geographic entities is at the discretion of Property Appraisers. The number of census tracts and census places in each Florida county is presented in Table 2 of the Addendum.

- 5.5 Market Area Coding Systems. Market area codes are two-digit codes required on each real property parcel on assessment rolls reported to the Department each year. Until further notice, no county may apply more than 99 market area codes within one of the statutory real property strata. A few of the largest Florida counties could have a total market area count numbering in the three digits. In order to accommodate any such total market area counts using a two-digit coding system, these few counties may have to use the same market area code for more than one statutory real property strata. For example, such a county could have a market area code 20 for stratum 1 property and also have a market area code 20 for stratum 2 property, even though the boundaries likely will be different. Other coding parameters include the following.
- (1) If a county selects the option of using stratum 1 market area boundaries for stratum 4 market area boundaries, then all stratum 4 properties within a stratum 1 market area boundary also must get the corresponding stratum 1 market area code.

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⁵ Stephen F. Fanning, Terry V. Grissom, and Thomas D. Pearson, *Market Analysis for Valuation Appraisals*, (Chicago: The Appraisal Institute, 1994), page 126.

- (2) If a county selects the option of using stratum 6 market area boundaries for stratum 5 market area boundaries, then all stratum 5 properties within a stratum 6 market area boundary also must get the corresponding stratum 6 market area code.
- (3) The market area coding system applied to real property within statutory strata 3 and 7 is at the discretion of Property Appraisers.
- 5.6 Initial Period for Market Area Delineation and Coding. It is expected that the Florida Uniform Market Area Guidelines will be adopted by the end of 2003. Florida Property Appraisers are required to submit preliminary assessment rolls, by July 1, 2005, with market area codes established on all real property parcels in compliance with applicable Florida law, rules, uniform guidelines, and regulatory requirements. Therefore, Property Appraisers will have a period of 18 months, or one and a half years, to delineate and code market areas. In order to meet the statutory requirements for representativeness, uniformity, and the maximum practicable use of available sale data for the Department's statutory ratio studies, it may be necessary to provide additional parameters for the delineation and coding of market areas. Any such additional parameters may be designed to address the situations in counties with different parcel counts.
- 5.7 Maintenance of Market Areas and Market Area Codes. Following the initial period described in the preceding section, Florida Property Appraisers are required to maintain market areas and market area codes on each real property parcel on assessment rolls in accordance with applicable Florida law, rules, uniform guidelines, and regulatory requirements. A goal of these uniform guidelines is to maximize the stability of market area boundaries and coding systems, and to minimize the need to adjustment them. During the initial period described in section 5.6, market areas should be delineated and coded in a manner that will maximize such stability and minimize the need for future maintenance. However, some maintenance will be necessary as market change occurs. As growth in real property markets occur over time, it is preferable to create new market areas when parcel counts and sale counts allow, rather than maintain many market areas close to the maximum parcel count parameters. See section 4.8.
- **5.8 Framework for Resolution of Issues.** To resolve issues relating to market areas and these uniform guidelines during the delineation and coding period and any time thereafter, the Department of Revenue and the offices of Florida Property Appraisers will work cooperatively within the framework of applicable Florida law, rules, uniform guidelines, and regulatory requirements.

ADDENDUM

- Table 1 This contains data, analysis, and results pertaining to market area parameters for statutory stratum 1 real property for each county.
- Table 2 This contains the ranges of market areas resulting from the analysis in Table 1, along with a comparison with census geographic entities and the existing number of market areas reported by each county.

TABLE 1									
Actual	Guideline Data for Stratum 1 Market Areas								
Stratum 1	Minimum	Mid-Range		Minimum Parcels	Maximum				
Parcel	Average Parcels	Average Parcels	Average Parcels		Parcels for any				
Counts	per MA (1)	per MA	per MA	MA (2)	Single MA				
1,451	720	800	880	400	1,051				
1,768	747	830	913	400	1,368				
2,012	775	861	947	400	1,612				
2,963	804 834	893 927	983 1,020	500	1,787				
3,040 3,385	866	962	1,058	500 500	1,854 1,923				
4,088	898	998	1,098	500	1,995				
4,212	932	1,035	1,139	500	2,070				
4,232	967	1,074	1,181	500	2,148				
4,376	1,003	1,114	1,226	500	2,229				
4,888	1,040	1,156	1,272	500	2,312				
5,596	1,079	1,199	1,319	600	2,399				
6,026	1,120	1,244	1,369	600	2,489				
6,071	1,162	1,291	1,420	600	2,582				
6,532	1,205 1,251	1,339 1,390	1,473 1,529	600	2,679				
6,915 6,924	1,298	1,390	1,586	600 600	2,779 2,884				
7,355	1,346	1,442	1,566 1,645	600	2,992				
8,299	1,397	1,552	1,707	600	3,104				
8,398	1,449	1,610	1,771	600	3,220				
8,932	1,503	1,671	1,838	600	3,341				
9,561	1,560	1,733	1,906	600	3,466				
11,992	1,618	1,798	1,978	800	3,596				
12,357	1,679	1,866	2,052	800	3,731				
12,703	1,742	1,936	2,129	800	3,871				
14,258 15,939	1,807 1,875	2,008 2,083	2,209 2,292	800 800	4,016 4,167				
21,919	1,945	2,162	2,378	1,000	4,323				
21,946	2,018	2,243	2,467	1,000	4,485				
25,275	2,094	2,327	2,559	1,000	4,653				
26,234	2,173	2,414	2,655	1,000	4,828				
29,945	2,254	2,505	2,755	1,000	5,009				
34,579	2,339	2,598	2,858	1,000	5,197				
37,723	2,426	2,696	2,965	1,000	5,392				
44,902 48,672	2,517 2,612	2,797 2,902	3,077 3,192	1,000 1,000	5,594 5,804				
49,117	2,710	3,011	3,312	1,000	6,021				
52,085	2,811	3,124	3,436	1,000	6,247				
56,574		3,241	3,565	1,000	6,481				
56,606	3,026	3,362	3,698	1,000	6,724				
58,565	3,139	3,488	3,837	1,000	6,977				
58,579	3,257	3,619	3,981	1,000	7,238				
60,765	3,379	3,755	4,130		7,510				
64,706	3,506	3,896	4,285	1,000	7,791				
65,227	3,638	4,042	4,446 4,613	1,000	8,083				
68,636 75,525	3,774 3,915	4,193 4,351	4,613 4,786	1,000 1,000	8,387 8,701				
78,874	4,062	4,514	4,965	1,000	9,027				
84,586	4,215	4,683	5,151	1,000	9,366				
95,444	4,373	4,859	5,344	1,000	9,717				
97,932	4,537	5,041	5,545	1,000	10,082				
101,622	4,707	5,230	5,753	1,000	10,460				
115,955	4,883	5,426	5,968	1,000	10,852				
140,438	5,066 5.356	5,629	6,192	1,000	11,259				
145,454 156,775	5,256 5,454	5,840 6,059	6,425 6,665	1,000 1,000	11,681 12,119				
161,328	5,454 5,658	6,287	6,915	1,000	12,119				
165,179	5,870	6,522	7,175	1,000	13,045				
185,654	6,090	6,767	7,444	1,000	13,534				
203,548	6,319	7,021	7,723	1,000	14,042				
228,627	6,556	7,284	8,013	1,000	14,568				
257,539	6,802	7,557	8,313		15,115				
295,903	7,057	7,841	8,625	1,000	15,681				
346,950	7,321	8,135	8,948	1,000	16,269				
479,659 575,567	7,596	8,440 8,756	9,284	1,000	16,879 17,512				
575,567 601,882	7,881 8,176	8,756 9,085	9,632 9,993	1,000 1,000	17,512 18,169				
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TABLE 2								
Actual Data Stratum 1 No. of No. of Existing				Guideline Data for Stratum 1 Market Areas Mid-Range Upper No. of Minimum Maxin				as Maximum
Parcel	Census	Census	Market	Lower No. of	No. of Market	Market Areas	Parcels for any	Parcels for any
Counts	Tracts	Places	Areas	Market Areas	Areas	(1)	Single MA (2)	Single MA
1,451	2	1	4	2	2 2	2 2	400	1,051
1,768 2,012	2	1	9	2	2	3	400 400	1,368 1,612
2,963	2	1	1	3	3	4	500	1,787
3,040	3	3	4	3	3	4	500	1,854
3,385 4,088	3 2	2	3 12	3 4	4	4 4	500 500	1,923 1,995
4,212	5	3	6	4	4	4	500	2,070
4,232	4	5	1	4	4	4	500	2,148
4,376 4,888	3 4	2	2 2	4	4	4 5	500 500	2,229 2,312
5,596	4	3	4	4	5	5	600	2,399
6,026	3	5	11	4	5	5	600	2,489
6,071 6,532	2	2	2 7	4	5 5	5 5	600 600	2,582 2,679
6,915	3	2	7	4	5	5	600	2,779
6,924	4	5	3	4	5	5	600	2,884
7,355 8,299	5 4	1 2	1 1	4 5	5 5	5 6	600 600	2,992 3,104
8,398	5	2	8	5	5	6	600	3,220
8,932	6	4	4	5	5	6	600	3,341
9,561 11,992	6 9	2 6	3 5	5 6	6 7	6	600 800	3,466 3,596
12,357	11	11	6	6	7	7	800	3,731
12,703	6	3	16	6	7	7	800	3,871
14,258 15,939	7 8	13 4	2 4	6 7	7 8	8 9	800 800	4,016 4,167
21,919	10	7	1	9	10	11	1,000	4,323
21,946	8	5	4	9	10	11	1,000	4,485
25,275 26,234	6	5 4	11 4	10 10	11	12 12	1,000 1,000	4,653 4,828
29,945	14	6	3	11	12	13	1,000	5,009
34,579	17	5	19	12	13	15	1,000	5,197
37,723 44,902	26 19	13 5	22 16	13 15	14 16	16 18	1,000 1,000	5,392 5,594
48,672	23	15	8	15	16	18	1,000	5,804
49,117	20	8	4	15	16	18	1,000	6,021
52,085 56,574	19 43	12 9	8	15 15	16 16	18 18	1,000 1,000	6,247 6,481
56,606	24	11	6	15	16	18	1,000	6,724
58,565	25	20	10	15	16	18	1,000	6,977
58,579 60,765	18 28	15 7	34 9	15 15	16 16	18 18	1,000 1,000	7,238 7,510
64,706	29	14	10	15	16	18	1,000	7,791
65,227	33	13	4	15	16	18	1,000	8,083
68,636 75,525	48 23	2 11	7 7	15 16	16 17	18 19	1,000 1,000	8,387 8,701
78,874	36	10	22	16	17	19	1,000	9,027
84,586	32	29	4	16 18	18 19	20 22	1,000	9,366
95,444 97,932	58 60	12 15	4 8	18	19	22 22	1,000 1,000	9,717 10,082
101,622	46	6	5	18	19	22	1,000	10,460
115,955	75 52	15 16	6 14	19	21 25	24 28	1,000	10,852
140,438 145,454	52 65	16 25	14 15	23 23	25 25	28 28	1,000 1,000	11,259 11,681
156,775	110	36	5	23	25	28	1,000	12,119
161,328	83	27	6 22	23	25	28	1,000	12,573
165,179 185,654	78 92	24 23	23 28	23 25	25 27	28 30	1,000 1,000	13,045 13,534
203,548	117	38	37	26	29	32	1,000	14,042
228,627	150	5 45	5	29	31	35 39	1,000	14,568
257,539 295,903	193 249	45 33	6 14	31 34	34 38	38 42	1,000 1,000	15,115 15,681
346,950	208	34	34	39	43	47	1,000	16,269
479,659	265	66	18 °	52	57 66	63 73	1,000	16,879
575,567 601,882	279 348	78 80	8 7	60 60	66 66	73 74	1,000 1,000	17,512 18,169
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